

IOWA DEPARTMENT OF NATURAL RESOURCES

ADMINISTRATIVE ORDER

IN THE MATTER OF: MAHLE ENGINE COMPONENTS USA, INC. Wastewater Supply Facility No. 6-15-09-1-02	ADMINISTRATIVE ORDER NO. 2014-WW- 17
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TO: Martyn Hempston, President
MAHLE Engine Components
USA, Inc.
One MAHLE Drive
Morristown, TN 37814

CT Corporation
400 East Court Avenue
Des Moines, IA 50309

I. SUMMARY

This administrative order (order) is issued by the Iowa Department of Natural Resources (Department) to MAHLE Engine Components USA, Inc. (MAHLE) for violations of its National Pollutant Discharge Elimination System (NPDES) permit and the Department's wastewater rule requirements. This order requires MAHLE to pay an administrative penalty as set forth in this order.

Any questions regarding this order should be directed to:

Relating to technical requirements:

Jessica Montana
Environmental Program Supervisor
Field Office No. 4
Iowa Department of Natural Resources
1401 Sunnyside Lane
Atlantic, Iowa 50022
Ph: (712) 243-1934

Relating to legal requirements:

Diana Hansen
Attorney
Legal Services Bureau
Iowa Department of Natural Resources
502 East 9th Street
Des Moines, Iowa 50319
Ph: (515) 725-8248

Direct payment of penalty to:

Iowa Department of Natural Resources
502 East 9th Street
Des Moines, Iowa 50319-0034

**IOWA DEPARTMENT OF NATURAL RESOURCES
ADMINISTRATIVE ORDER
MAHLE ENGINE COMPONENTS USA, INC.**

II. JURISDICTION

This order is issued pursuant to Iowa Code section 455B.175(1), which authorizes the Director to issue any order necessary to secure compliance with or prevent a violation of Iowa Code chapter 455B, Division III, Part 1, and the rules promulgated or permits issued pursuant thereto; and Iowa Code section 455B.109 and 567 Iowa Administrative Code (IAC) chapter 10 (455B), which authorize the Director to assess penalties.

III. STATEMENT OF FACTS

1. MAHLE manufactures fluid film thin wall and heavy duty engine bearings and bushings from metal coils manufactured by others for numerous types of engine applications, including motor vehicles, at a manufacturing plant located in Atlantic, Iowa. The manufacturing process includes metal forming, machining, degreasing and electroplating. The standard industrial classification (SIC) code applicable to this facility is 3714, motor vehicle parts and accessories.

2. MAHLE obtains water for the manufacturing process from the City of Atlantic (City) public water supply. The facility operates an on-site wastewater treatment system for removal of metals, oils, and greases from its process wastewater. Additionally, the discharge from a treatment system used to remove volatile organic compounds from contaminated groundwater below the site combines with the treated process wastewater and storm water before discharging to the East Nishnabotna River.

3. On June 29, 2010, the Department issued final National Pollutant Discharge NPDES Permit No. 6-15-09-1-02 (permit) to MAHLE authorizing the discharge of wastewater. The facility was required to submit monthly operation reports (MORs) using Department MOR forms.

4. On June 15, 2011, the Department sent MAHLE a copy of a final permit amendment. The permit amendment included a compliance schedule for completing a toxicity reduction evaluation (TRE). Changes were made to the TRE compliance schedule from the draft permit amendment sent to MAHLE on April 25, 2011. These changes included submittal of an additional progress report prior to completion of the TRE and removal of Total Dissolved Solids (TDS) language and replacement with the requirement to comply with the final effluent limits for acute toxicity which allowed for no toxicity. The TRE compliance schedule was changed to require MAHLE to provide written notice of compliance with each scheduled event to the Department.

5. On February 8, 2013, Department staff sent a letter to Jerry Hultgren (Hultgren) at the Atlantic, Iowa facility regarding the facility's permit compliance schedule. The Department's letter was in response to an email from Hultgren dated December 31, 2012 requesting a TRE amendment to the compliance schedule. The Department's letter explained that a TRE compliance schedule modification request must be "very specific."

6. On April 19, 2013, Hultgren sent an email to Department Field Office 4 (FO4) stating that the request for "amendment was a preliminary request. We [MAHLE]

**IOWA DEPARTMENT OF NATURAL RESOURCES
ADMINISTRATIVE ORDER
MAHLE ENGINE COMPONENTS USA, INC.**

were not sure if this was a feasible option should we be cutting close to meeting requirements by June 30th deadline. At this time, it appears the request for amendment of the compliance date may not be needed.”

7. On June 5, 2013, MAHLE submitted an extension request concerning the schedule in its permit to the Department. The extension request asked for additional time to comply with the June 30, 2013 compliance date for meeting permit effluent limits for acute toxicity.

8. On June 28, 2013, Hultgren sent an email to FO4 stating that MAHLE would be in violation of its permit as of July 1, 2013 due to its inability to meet toxicity limits.

9. On July 26, 2013, the Department sent a letter to MAHLE regarding its request for extension of the June 30, 2013 compliance date in the permit. An extension was granted from June 30, 2013 to December 31, 2013 to achieve compliance with the final limit for acute toxicity.

10. On August 30, 2013, MAHLE submitted a progress report to the Department regarding its final plans and specifications regarding the compliance schedule for chlorides and calcium dimethyldithiocarbamate.

11. On September 13, 2013, the Department sent a letter to MAHLE regarding the final permit amendment, which was originally issued in July 2010 and then further amended in July 2011. This second final permit amendment was effective on September 13, 2013. It extended the date for achieving compliance with the final effluent limits for acute toxicity for both *Pimephales promelas* (fathead minnow) and *Ceriodaphnia dubia* (water flea) to December 31, 2013. New interim requirements were established by this final permit amendment.

12. On September 14, 2013, MAHLE submitted a letter regarding installation of new treatment equipment pursuant to the proposed Acute Toxicity compliance schedule dated July 26, 2013. The new equipment included microfiltration and an ion exchange system.

13. On September 30, 2013, MAHLE submitted a progress report regarding the installation of additional treatment equipment and the acute toxicity issues.

14. On December 30, 2013 MAHLE submitted a request for an extension to complete the TRE and comply with final NPDES permit effluent limits as identified in the revised September 2013 Acute Toxicity Compliance Schedule. This schedule required a TRE and compliance with NPDES effluent limits for toxicity no later than December 31, 2013. MAHLE requested an extension to comply with the final limits for acute toxicity. The request stated that MAHLE believed that the toxicity of its effluent was due to the combined effects of heavy metals, chlorides, and carbamates. According to the MAHLE extension request, “While there is more time to achieve compliance with chlorides and calcium dimethyldithiocarbamate limitations (final compliance by November 1, 2014), both are inextricably tied into toxicity. As a result, these issues must be solved simultaneously, which will require more time.”

**IOWA DEPARTMENT OF NATURAL RESOURCES
ADMINISTRATIVE ORDER
MAHLE ENGINE COMPONENTS USA, INC.**

15. On January 24, 2014, MAHLE representatives met with Department staff to discuss the company's failure to comply with toxicity limits. At this meeting, MAHLE provided information dating back to October 2013 detailing the progress MAHLE made toward compliance and to explain it was currently meeting all NPDES permit effluent limitations, except for acute toxicity. The Department had not known this information prior to the meeting. The Department requested that MAHLE submit a synopsis of the company's actions and progress, including a time line of events and results by no later than February 7, 2014.

16. MAHLE submitted to the Department information concerning WET tests conducted between January 22 and 29, 2014. During this time, MAHLE submitted samples for three process setups. One test of the three, which used a carbon treatment canister as the last treatment step before discharge, passed on both dates. The company indicated that it planned to proceed with testing consistency and repeatability with this setup along with evaluation of alternate suppliers for this treatment equipment. The company indicated that its current supplier for this process was very high priced.

17. On January 30, 2014, the Department issued MAHLE a Notice of Violation for failure to comply with the compliance schedule in the company's NPDES permit.

18. On April 30, 2014, MAHLE sent a letter to FO4 stating the milestones had been completed. The company reported that it had completed optimization of feed rates and ratios for new primary treatment chemicals and that it would establish guidelines for operators to use in running the system. The letter stated that WET test sampling was done on March 18, 2014. The WET tests were done to evaluate the system setup with a fresh carbon canister from an existing supplier. Another round of WET testing was completed on April 29, 2014 to further evaluate the system setup with carbon canisters and ion exchange systems. The letter reported that MAHLE was working with URS Corporation (URS) to identify and remove potential sources of toxicity. Midwest Laboratories (Midwest) was contacted by URS to discuss Midwest's specific testing protocols for toxicity testing. Midwest identified potential causes for acute toxicity testing failure as residual chlorine, total dissolved solids, heavy metal sulfide, ammonia and organics. URS reviewed the toxicity evaluations and discussions with Midwest and identified four potential toxicity causes as total dissolved solids (TDS), sulfide, organics, and heavy metals. URS acknowledged that all four appear to play a factor in toxicity and that the cause of toxicity may be due to a combination of the parameters.

19. On May 29, 2014, MAHLE reported to FO4 potential noncompliance with copper. MAHLE's NPDES permit requires it to report any noncompliance that may endanger human health or the environment. On May 22, 2014, a composite sample of treated wastewater was collected at MAHLE. The lab report indicated that the copper test result for this sample was 0.279 mg/L. The permit limit for copper is 0.122 mg/l. The MAHLE letter stated that it had identified the cause of the copper exceedance and had shut down the problem unit.

**IOWA DEPARTMENT OF NATURAL RESOURCES
ADMINISTRATIVE ORDER
MAHLE ENGINE COMPONENTS USA, INC.**

IV. CONCLUSIONS OF LAW

1. Iowa Code section 455B. 186 prohibits the discharge of pollutants to waters of the state contrary to a permit from this Department. The discharges noted above in this order violate this provision.
2. Iowa Code section 455B.173 authorizes and requires the Environmental Protection Commission (Commission) to promulgate rules relating to the operation of waste disposal systems and discharge of pollutants into waters of the state. The Commission has done so at 567—IAC chapters 60-69. Further, the 567—64.3(1) prohibits the operation of any waste disposal system contrary to any condition of a permit. Also, 567—64.6 specifies the conditions that are to be included in a permit, including applicable effluent limitations in chapters 61 and 62 of the rules. The effluent limitations contained in Iowa NPDES Permit No. 6-82-78-1-00 for this facility are based on these rules.
3. There are two compliance schedules in MAHLE's NPDES permit. One schedule is for the chlorides and dimethyldithiocarbamate limitations. MAHLE has complied with this schedule and is not in violation of the stipulations to achieve compliance with the final limits by November 1, 2014. The second compliance schedule is for the Toxicity Reduction Evaluation that requires MAHLE to comply with final effluent limits no later than December 31, 2013, extended by the Department from June 30, 2013. MAHLE has failed to comply with its second compliance schedule.

V. ORDER

THEREFORE, the Department orders MAHLE to comply with the following provisions in order to cease, abate, and address the above-cited violations:

1. **Permit Compliance.** MAHLE is required to comply with the final effluent limits in the NPDES permit, including the final effluent limit for acute toxicity.
2. **Compliance Reports.** MAHLE is required to submit written compliance reports to FO4 and the Department's NPDES Permitting Section by the first of each month beginning February 1, 2015 and continue until July 1, 2015. The February 1, 2015 report is required to describe the activities performed from August 1, 2014 to date by the MAHLE facility to achieve and maintain compliance with the final effluent limits. Thereafter, each compliance report shall contain a short description of the activities performed in the previous month by MAHLE to achieve and maintain compliance the final effluent limits and whether such activities have resulted in compliance with permit requirements.
3. **WET Testing Documentation.** MAHLE is required to provide documentation by February 1, 2015 regarding all WET testing performed from July 1, 2010 to date. This documentation is to include the dates of all WET testing and the test results from each testing. If this documentation has been provided to the Department previously, please

**IOWA DEPARTMENT OF NATURAL RESOURCES
ADMINISTRATIVE ORDER
MAHLE ENGINE COMPONENTS USA, INC.**

indicate the date on which the information was provided and the Department staff receiving the information. MAHLE is required to provide the Department with the test results of all WET tests conducted at this facility for the duration of its permit.

4. **Administrative Penalty.** MAHLE shall pay an administrative penalty of \$10,000.00. This penalty is due within sixty (60) days of receipt of this order.

VI. PENALTY

1. Iowa Code section 455B.191 authorizes the assessment of civil penalties of up to \$5,000.00 per day of violation for the violations involved in this matter. Iowa Code section 455B.109 authorizes the Commission to establish by rule a schedule of civil penalties up to \$10,000.00 that may be assessed administratively.

2. The Commission has adopted this schedule with procedures and criteria for assessment of penalties in 567 IAC chapter 10. Pursuant to this chapter, the Department has determined that the most effective and efficient means of addressing the above-cited violations is the issuance of an order with an administrative penalty. The administrative penalty assessed by this order is determined as follows:

a. **Economic Benefit.** MAHLE has continued to operate its manufacturing facility and to generate revenue through sales of its products during the period of non-compliance.

Although MAHLE made efforts to retain contractors to assist in evaluating the process and developing a solution, it failed to retain a contractor or employ a party with expertise to evaluate its process or amend its treatment changes that would bring it into compliance by the scheduled date. The salary for an industrial process engineer ranges from \$50,000 to \$100,000 plus benefits (<http://www.samplejobdescription.net/Process-Engineer-Job-Description.html>). Savings in salary and other compensation is significant. The amount of \$3,000.00 is assessed for this factor.

b. **Gravity.** The alleged violations are considered serious. MAHLE has not complied with the toxicity effluent limits in its final permit amendments resulting in the continued discharge of an effluent that has been demonstrated to be acutely toxic to aquatic organisms. Specifically, the discharge to the East Nishnabotna River is the most toxic in the State of Iowa with a 24-hour LC₅₀ to *C. dubia* of only 0.4% in the baseline test conducted. The Department allowed MAHLE time to make process changes or install additional treatment, yet, the facility did not comply within the agreed upon time frame.

MAHLE was in violation of the schedule from July 1, 2013 until September 12, 2013. MAHLE was granted a schedule extension to meet the toxicity limits but failed to do so and has been in non-compliance with the compliance schedule since January 1, 2014. Because there have been permit effluent limit and permit amendment schedule violations, and given the serious nature of the violations, the amount of \$3,500.00 is assessed for this factor due to the multiple violations.

**IOWA DEPARTMENT OF NATURAL RESOURCES
ADMINISTRATIVE ORDER
MAHLE ENGINE COMPONENTS USA, INC.**

c. **Culpability.** In a June 28, 2013 email to the Department, MAHLE acknowledged and informed the Department that MAHLE could not meet a June 30, 2013 compliance date, thus requested an extension until December 31, 2013. The Department extended the compliance date to December 31, 2013. One day before the new December 31, 2013 compliance deadline, MAHLE submitted another request for an extension. MAHLE knew, or should have known, from previous correspondence, that the Department could not extend a final compliance date. The amount of \$3,500.00 is assessed for this factor, in view of multiple violations.

VII. APPEAL RIGHTS

Pursuant to Iowa Code section 455B.175, and subrule 561 IAC 7.4(1), as adopted by reference by 567 IAC chapter 7, a written notice of appeal to the Commission may be filed within 30 days of receipt of this order. The notice of appeal should be filed with the Director of the Department, and must identify the specific portion or portions of this order being appealed and include a short and plain statement of the reasons for appeal. A contested case hearing will then be commenced pursuant to Iowa Code chapter 17A and 561 IAC chapter 7.

VIII. NONCOMPLIANCE

Compliance with Section V. of this order constitutes full satisfaction of all requirements pertaining to the violations described in this order. Failure to comply with this order may result in the imposition of further administrative penalties pursuant to an administrative order or referral to the Attorney General to obtain injunctive relief and civil penalties pursuant to Iowa Code section 455B.191.



CHUCK GIPP, DIRECTOR
IOWA DEPARTMENT OF NATURAL RESOURCES

Dated this 23rd day of
December, 2014

MAHLE Engine Components USA, Inc.- Wastewater Facility No. 6-15-09-1-02 (Copy to Central Records File), Jessica Montana- Field Office No. 4, Wendy Heib- NPDES Permits, Diana Hansen - Legal Services Bureau, I.B.2.b. and I.B.2.c.

Copy to:

Angelique Strong Marks, MAHLE Industries, Incorporated, 23030 MAHLE Drive,
Farmington Hills, Michigan 48335

Jerry Hultgren, MAHLE Engine Components, USA Inc., 60428 Marne Rd., Atlantic, IA
50022

